

# Some Taxonomic Changes in *Syringa* L. (Oleaceae), Including a Revision of Series *Pubescentes*

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**ABSTRACT.** A number of species of *Syringa* are reviewed, and series *Pubescentes* is revised. At infraspecific rank, the following new combinations in *Syringa* from Asia are proposed: *S. komarowii* subsp. *reflexa*, *S. oblata* subsp. *dilatata*, *S. reticulata* subsp. *amurensis*, *S. reticulata* subsp. *pekinensis*, and *S. pubescens* subsp. *microphylla* var. *potaninii*. Identification keys are presented.

The preparation of an account of *Syringa* for the forthcoming English version of the *Flora of China*, combined, for the senior author, with the preparation of an account for the *European Garden Flora*, has led to a review of the genus and a reassessment of the appropriate rank for some of the previously recognized species or varieties. The following are the taxonomic and nomenclatural consequences.

## A. *SYRINGA KOMAROWII*

***Syringa komarowii*** Schneider subsp. ***reflexa*** (Schneider) P. S. Green & M. C. Chang, stat. nov. Basionym: *Syringa reflexa* Schneider, Reper. Spec. Nov. Regni Veg. 9: 80. 1910. SYNTYPES: "C.-China. Hupeh: 8-9000", Henry 6819 (K); "W. Hupeh," Wilson 2078 (K).

Although McKelvey (1928: 77) stated, "The relationship of *Syringa komarowii* to *S. reflexa* Schneider is exceedingly close, and it is possible that at some future time *S. komarowii* may be classified as an extreme form of the Hupeh [Hubei] plant," it was not until 1990 that the two were formally united at the varietal rank (Chang & Chen, 1990: 35). However, while bearing the morphological differences in mind, because *S. komarowii* and *S. reflexa* occupy distinct geographical areas, the former in southern Gansu, southern Shaanxi, Sichuan, and northern Yunnan, the latter in western Hubei and northeastern Sichuan, we believe that subspecies is

the appropriate infraspecific category. They may be distinguished as follows:

- 1a. Corolla lobes somewhat erect; inflorescence usually  $\pm$  compact . . . . . subsp. *komarowii*
- 1b. Corolla lobes spreading; inflorescence somewhat pyramidal, often interrupted . . . . . subsp. *reflexa*

## B. *SYRINGA OBLATA*

***Syringa oblata*** Lindley subsp. ***dilatata*** (Nakai) P. S. Green & M. C. Chang, stat. nov. Basionym: *Syringa dilatata* Nakai, Bot. Mag. (Tokyo) 32: 128. 1918. SYNTYPES: Korea. "Pon-san," Kamibayashi s.n., "Pan-syu-non," Uchiyama s.n., "in summo montis Nonensan," Nakai 2209, "Kosui," Nakai 2602, "Su-hun," Nakai 2610, and "Chokoku," Kin-o-sho 268 (syntypes, TI not seen).

As well as exhibiting morphological distinctness, *Syringa dilatata* and *S. oblata* have different distributions, the former in Korea and northeastern China, and the latter in northern China. The rank of subspecies seems therefore to be the more appropriate one. They may be distinguished as follows:

- 1a. Leaves usually slightly broader than long, 2.5-7  $\times$  3-8 cm, base truncate to usually slightly cordate; corolla tube 6-11 mm long, corolla lobes 4-6 mm long . . . . . subsp. *oblata*
- 1b. Leaves usually slightly narrower than long, 3-7  $\times$  2.5-6 cm, base truncate; corolla tube 11-14 mm long, corolla lobes 5-8 mm long . . . . . subsp. *dilatata*

## C. *SYRINGA RETICULATA*

***Syringa reticulata*** (Blume) Hara subsp. ***amurensis*** (Ruprecht) P. S. Green & M. C. Chang, stat. nov. Basionym: *Syringa amurensis* Ruprecht, Bull. Cl. Phys.-Math. Imp. Acad. Sci. St. Pétersb. 15: 371. 1857. TYPE: China/Russia. Ussuri River area, Maack s.n. (syntypes, ?LE not seen).

***Syringa reticulata*** (Blume) Hara subsp. **pekinensis** (Ruprecht) P. S. Green & M. C. Chang, stat. nov. Basionym: *Syringa pekinensis* Ruprecht, Bull. Cl. Phys.-Math. Imp. Acad. Sci. St. Pétersb. 15: 371. 1857. TYPE: China. Hebei: ?*Kirilov s.n.* (holotype, ?LE not seen).

Once again, and for similar reasons, it is believed that subspecific rank is the appropriate one for these taxa. *Syringa reticulata* subsp. *reticulata* is native to Japan, subspecies *amurensis* to northeasternmost China, adjacent Russia, and Korea, and subspecies *pekinensis* to northern China and Mongolia. Although in most of the relevant literature, the last has been treated at specific rank, it is noteworthy that Maximowicz (1859: 194), only two years after the plant was first described as a species, reduced it to varietal rank. Furthermore, Hemsley (in Forbes & Hemsley, 1889: 82) sank *S. pekinensis* under *S. amurensis* and commented, "The differences between the Mandshurian, Japanese, and Chinese specimens are slight." They may be keyed out as follows:

- 1a. Leaves mostly longer than 7 cm, hairy, especially on the midrib and main veins on the under surface; capsules blunt . . . . . subsp. *reticulata*

1b. Leaves mostly less than 7 cm long, glabrous above.

2a. Petioles stoutish, 1–2 cm long; veinlets slightly sunk; capsule apex blunt . . . . .

. . . . . subsp. *amurensis*

2b. Petioles slender, 1.5–3 cm long; veinlets not sunk on the upper surface of the leaf; capsule apex acute . . . . . subsp. *pekinensis*

#### D. A REVISION OF SERIES *PUBESCENTES*

Chang and Chen (1990; see also Chang & Qui, 1992: 63–71) have proposed changes in rank for some of the taxa in series *Pubescentes* (C. K. Schneider) Lingelsheim, which, following the classic monograph of McKelvey (1928), have previously been treated as species by botanists and gardeners alike. The taxa in this section are closely related, and, for some, classification at the rank of species does not seem justified. However, examination of numerous collections of these plants has led to certain modifications to the classification proposed by Chang and Chen. These are set out below, following an identification key to the revised series. The numerous synonyms cited by McKelvey (1928) are not repeated here.

#### KEY TO *SYRINGA* SERIES *PUBESCENTES*

- 1a. Leaves with lateral veins  $\pm$  pinnate, the 2 lowest pairs of veins not closely adjacent.  
 2a. Leaves usually manifestly longer than broad, sometimes almost as broad as long; corolla lobes 2–4 mm long.  
 3a. Upper (adaxial) surface of leaves glabrous or glabrescent, except sometimes for a slight pubescence on midrib and main veins on the under surface, rarely pilose.  
 4a. Leaves usually 1.5–3.5(–7) cm long, 1–2.5(–4) cm broad . . . . . 1. *S. pubescens*  
 5a. Young stems and inflorescence axes  $\pm$  4-angled; corolla tube 10–15 mm long; north-central China . . . . . 1a. subsp. *pubescens*  
 5b. Young stems and inflorescence axes  $\pm$  terete; corolla tube 8–10 mm long; northwestern and west-central China . . . . . 1d. subsp. *microphylla* var. *microphylla*  
 4b. Leaves 5–11 (rarely less) cm long, 2.5–6 (rarely less) cm broad . . . . . 1b. subsp. *patula*  
 3b. Upper surface of leaves finely, often scattered, pilose.  
 6a. Leaves (2.5–)3–5(–7) cm long, (1.5–)2–2.5(–3.5) cm broad, densely pilose to villous below.  
 7a. Young stems and inflorescence axes puberulent to densely pilose.  
 8a. Corolla tube 7–8 mm long; petioles 2–12 mm long . . . . . 1c. subsp. *julianae*  
 8b. Corolla tube 8–10 mm long; petioles 2–5 mm long . . . . . 1d. subsp. *microphylla* var. *potaninii*  
 7b. Young stems and inflorescence axes  $\pm$  densely villous . . . . . 2. *S. mairei*  
 6b. Leaves 1.5–3 cm long, 0.6–1.8 cm broad, glabrous except for a pilose midrib and primary veins below . . . . . 3. *S. pinetorum*  
 2b. Leaves as broad as long, 1.2–2.2 cm broad, or slightly broader than long, almost circular; corolla lobes 4–5 mm long . . . . . 4. *S. wardii*  
 1b. Leaves with 2 pairs of veins  $\pm$  palmately arranged at the lamina base, blade usually 1.5–3(–4) cm long, 1–2.7(–3) cm broad . . . . . 5. *S. meyeri*

1. ***Syringa pubescens*** Turczaninow, Bull. Soc. Nat. Moscou 13: 73. 1840. TYPE: China. Hebei: 1831, *Kirilov s.n.*? (holotype, LE, photograph, K).

Erect or spreading shrubs to 5 m tall, young

stems glabrous or pubescent. Leaves narrowly to broadly ovate, elliptic or broadly elliptic, 1.5–9(–11) cm long, 1–5(–6) cm broad, glabrous to densely villous, 3 primary veins not closely adjacent at the lamina base. Inflorescence dense or open, glabrous to pilose, 3–15 cm long. Corolla tube 4–15 mm

long, lobes 2–4 mm long. Capsule slender or stoutish, 0.7–1.7 cm long, smooth or with a few lenticels.

1a. *Syringa pubescens* subsp. *pubescens*

Erect shrubs to 5 m tall, young stems glabrous. Leaves ovate to usually broadly ovate, sometimes elliptic, (1.5–)2.5–3.5(–7) cm long, (1–)1.7–2.5(–4) cm broad, apex acute to obtuse, very slightly acuminate, glabrous above, glabrous to pilose below, especially on the midrib and primary veins toward their bases. Inflorescence ± dense, 4–8(–10) cm long, axes glabrous to pilose. Corolla tube 10–15 mm long, lobes 2–4 mm long, purplish lilac, paler within. Capsule stoutish, 9–10 mm long, smooth with a few lenticels.

This subspecies is recorded (Chang in Chang & Qui, 1992) from the following provinces of China, all in the northern part of the country: Hebei, Henan, eastern Shaanxi, western Shandong, and Shanxi.

1b. *Syringa pubescens* subsp. *patula* (Palibin) M. C. Chang & X. L. Chen, Invest. Stud. Nat. 10: 34. 1990. *Ligustrum patulum* Palibin, Acta Hort. Petrop. 18: 146 (Consp. Fl. Korea 2: 10), 1900. *Syringa patula* (Palibin) Nakai, Bot. Mag. (Tokyo) 40: 148. 1926. TYPE: Korea, *Sontag s.n.* (holotype, ?LE not seen).

*Syringa velutina* Komarov, Acta Hort. Petrop. 18: 428. 1901. TYPE: Korea, *Komarov s.n.* (syntype, ?LE not seen).

*Syringa palibiniana* Nakai, Bot. Mag. (Tokyo) 27: 32. 1913. TYPE: Korea, *Faurie s.n.* (holotype, TI not seen).

Erect shrubs to 3 m tall, young stems slightly pubescent to glabrous. Leaves ovate or broadly ovate to usually elliptic or broadly elliptic, (3–)5–9(–11) cm long, (2–)2.5–5(–6) cm broad, apex slightly acuminate, glabrous above, rarely scattered short pilose, pilose to usually glabrous below except for the midrib and primary veins toward their bases. Inflorescence ± dense, 5–9(–15) cm long, pilose. Corolla tube 7–8(–10) mm long, lobes 2(–3) mm long, vinaceous lilac, white within. Capsules slender, curved, 1–1.5 cm long, with a few lenticels.

Recorded from northeasternmost China (Jilin and Liaoning) and Korea. This is a hardy plant that has proved its worth as a garden plant under rigorous climatic conditions. In the West it is perhaps best known in cultivation in the form of cv. 'Miss Kim.'

1c. *Syringa pubescens* subsp. *julianae* (C. K. Schneider) M. C. Chang & X. L. Chen, Invest. Stud. Nat. 10: 34. 1990. *Syringa julianae* C. K. Schneider, Ill. Handb. Laubholzk. 2: 777. 1912 & Bull. Misc. Inform. Kew 1912: 37. 1912. TYPE: cultivated, seed from China, Hubei, *Wilson 1220A* (holotype, ?W not seen; isotype, K).

Spreading shrubs to 2 m tall, young stems puberulent. Leaves narrowly ovate to elliptic, (2.5–)4–5(–7) cm long, (1.5–)2.3–2.5(–3) cm broad, apex acute, slightly long-acuminate, scattered pilose above, pilose below, densely so on midrib and main veins; petioles 2–12 mm long. Inflorescence ± open, (3–)4–6(–10) cm long, densely pilose. Corolla tube 7–8 mm long, lobes 2–3 mm long, violet-purple, paler within. Capsules slender, 0.7–1 cm long, smooth.

This subspecies has been recorded only from the province of Hubei.

1d. *Syringa pubescens* subsp. *microphylla* (Diels) M. C. Chang & X. L. Chen, Invest. Stud. Nat. 10: 34. 1990. *Syringa microphylla* Diels, Bot. Jahrb. Syst. 29: 531. 1900. SYNTYPES: China. Shaanxi: *Giraldi 1644 & 1645* (B destroyed).

i. *Syringa pubescens* [subsp. *microphylla*] var. *microphylla*

Spreading shrubs to 2 m tall, young stems finely puberulent to rarely glabrous. Leaves ovate to elliptic, narrowly to broadly so, apex obtuse to acute, very slightly acuminate, glabrous above, rarely scattered pilose, glabrous below, except the midrib and primary veins toward their bases, rarely pilose. Inflorescence ± dense, 4–10(–12) cm long, pilose. Corolla tube 8–10 mm long, lobes 2–3 mm long, pinkish lilac, slightly paler within. Capsules ± slender, 1.2–1.5 cm long, smooth with a few lenticels.

Recorded (see Chang in Chang & Qui, 1992: 67) from the Chinese provinces of Gansu, Hebei, Henan, Hubei, Ningxia, Qinghai, Shaanxi, Shanxi, and Sichuan. Variety *flavoanthera* (X. L. Chen) M. C. Chang has been recognized, but the taxonomic value of anther color is uncertain, and the recording of it can be suspect, seeing that the pollen of purplish anthers can make them appear yellow after dehiscence.

- ii. ***Syringa pubescens*** [subsp. ***microphylla***] var. ***potaninii*** (C. K. Schneider) P. S. Green & M. C. Chang, comb. et stat. nov. Basionym: *Syringa potaninii* C. K. Schneider, Repert. Spec. Nov. Regni Veg. 9: 80. 1910. TYPE: "Nord-China, O-kansu, am Flusse Tschilo ku im Gebirge," 1885, *Potanin s.n.* (holotype, ?LE not seen; isotype, K).

More or less erect shrubs to 4 m tall, young stems finely puberulent. Leaves ovate to elliptic, (2.5-)3-5(-6) cm long, (1.5-)2-2.5(-3.5) cm broad, apex acute, somewhat acuminate, puberulent to glabrous above, rarely scattered pilose, scattered to densely pilose below, especially on the midrib and main veins toward the base; petioles 2-5 mm long. Inflorescence  $\pm$  dense, 6-10 cm long, finely puberulent. Corolla tube 8-10 mm long, lobes 2-3.5 mm long, pinkish lilac, paler within. Capsules slender, 1.5-1.7 cm long, smooth with a few lenticels.

Known only from the Chinese province of Gansu.

2. ***Syringa mairei*** (H. Léveillé) Rehder, J. Arnold Arbor. 15: 302. 1934. *Ligustrum mairei* H. Léveillé, Cat. Pl. Yun-Nan 181. 1916. TYPE: China. Yunnan: *Maire s.n.* (holotype, E, photograph, K).

*Syringa rugulosa* McKelvey, J. Arnold Arbor. 6: 152. 1925. TYPE: China. Yunnan: *Maire "169/1914"* (holotype, E, photograph, K).

Shrubs to 4 m tall, young stems densely villous. Leaves ovate to elliptic, somewhat broadly so, (2-)4-4.5(-6) cm long, (1.5-)2-2.5(-3) cm broad, apex acuminate, pilose above, densely pilose below. Inflorescence dense, 7-12 cm long, villous. Corolla tube 7-9 mm long, lobes 2-3 mm long, "rose-violet." Capsule stoutish, 1 cm long, smooth with a few lenticels.

This is a little known plant from Yunnan. The two names, *Syringa mairei* and *S. rugulosa*, were almost certainly based on duplicates of the same collection made by E. E. Maire.

3. ***Syringa pinetorum*** W. W. Smith, Notes Roy. Bot. Gard. Edinburgh 9: 132. 1916. TYPE: China. Yunnan: *Forrest 12472* (holotype, E, photograph, K).

Slender shrubs to 2.5 m tall, young stems pilose. Leaves narrowly ovate to elliptic, 1.5-3 cm long, 0.6-1.8 cm broad, apex acute, acuminate, scattered pilose above, glabrous below except for the midrib and primary veins toward their bases.

Inflorescence  $\pm$  dense, 8-12 cm long, pilose. Corolla tube 9-10 mm long, lobes 3 mm long, "pale lavender-rose." Capsule with inconspicuous lenticels.

A little known plant from Tibet and the province of Yunnan. Plants that have been cultivated under this name have been misidentified. They have frequently been found to be *S. yunnanensis* Franchet.

4. ***Syringa wardii*** W. W. Smith, Notes Roy. Bot. Gard. Edinburgh 9: 132. 1916. TYPE: China. Yunnan: *Kingdon Ward 312* (holotype, E, photograph, K).

Shrubs to 5 m tall, young stems pilose. Leaves  $\pm$  circular, about 1.2-2.2 cm long and broad, apex rounded, extremely shortly acuminate, glabrous above and below, 3 primary veins on each side, not adjacent at the base of the lamina. Inflorescence somewhat dense, 6-9 cm long, pubescent. Corolla tube 13-14 mm long, lobes 4-5 mm long, pale pinkish lilac? Capsule with inconspicuous lenticels.

This species is only known from the type collection and was previously treated as a synonym of *Syringa pinetorum* by Chang (in Chang & Qui, 1992: 71). However, the small, more or less circular leaves and long corolla tube mark it out as distinct.

5. ***Syringa meyeri*** C. K. Schneider in Sargent, Pl. Wilson. 1: 301. 1912. TYPE: cultivated at the Arnold Arboretum, origin from cultivation in China, Hebei, *Meyer*, under Dept. of Agriculture number 23032 (holotype, A).

Compact shrub to 1.5 m tall, young stems finely puberulent. Leaves ovate to very broadly ovate-elliptic, (1.5-)2-3(-4) cm long, (1-)1.8-2.7(-3) cm broad, apex obtuse, rarely somewhat acute, very slightly and shortly acuminate, glabrous above, glabrous below except the midrib and the primary veins toward their bases, 2 (or 3) primary veins on each side, subpalmate, arising within 2 mm of the base of the lamina. Inflorescence dense, 5-11 cm long, puberulent. Corolla tube 9-12 mm long, lobes 2-3 mm long, purplish lilac, paler within. Capsules slender, 1-1.2 cm long, lenticular.

This compact, relatively dwarf species was first described from cultivated material. It is widely grown in northern China, and in the West under the name 'Palibin' (see Green, 1979). It was known only as a cultivated plant until discovered in the wild by Chang as recently as 1989 in the province of Liaoning. This plant has been described as:

*Syringa meyeri* var. *spontanea* M. C. Chang, Invest. Stud. Nat. 10: 33. 1990. TYPE: China. Liaoning: M. C. Chang & X. K. Qin 2872 (holotype, SHM; isotype, K).

The variety is distinguished by its looser inflorescence, somewhat shorter corolla tube, and smaller leaf.

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